

NEWS LETTER



Jan – June 2023

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EDITORIAL COMMITTEE

Faculty Members:

Dr. R. Selvakumar, Assistant Professor/EC
Mr. G. Arun Francis, Assistant Professor/EC
Mr. C. Mukuntharaj, Assistant Professor/EC

Student Members:

20L214 – Gopi P
21L314 – Gunabharath K
21L216 – Jagath



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DEPARTMENT @ GLANCE

B.E. Electronics and Communication (EC) Engineering offered at Karpagam College of Engineering and established in the year 2000. The department has experienced and qualified faculty members, well equipped laboratory such as DSP lab, MEMS Lab, Communication and Microwave Engineering Lab, LIC / Digital Lab, VLSI Design Lab, Network sand Simulation and Electron Devices Lab with availability of latest and updated version of software package. The department has also promoted different center of excellence for MEMS Research and Development (CMRD), Centre for Signal Processing Research and Development (CSPRD), Centre for Embedded system Research and Development (CESRD), Centre for Image and Video Processing Research and Development (CIVRD), Centre for VLSI Design and Development (CVDD) and Centre for Research Communication and Wireless Network (CRCWN) for developing research activities in the field of Electronics and Communication Engineering.



VISION OF THE DEPARTMENT

- ❖ To be recognized as a premier department for delivering competent Electronics and Communication Engineers with socio-ethical responsibility.

MISSION OF THE DEPARTMENT

- ❖ Adapting innovative pedagogical methodologies for effective curriculum delivering.
- ❖ Establishing Centre of Excellence in various domains for fostering collaborative research and innovation related pursuits.
- ❖ Inculcating ethics, social responsibility with inclusive leadership skills.
- ❖ Incubating entrepreneurship ventures and imparting employability skills.

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

PEO1: Graduates will be professionals in Electronics and Communication Engineering/allied industries, pursue higher studies or entrepreneurs

PEO2: Graduates will be executing multidisciplinary projects with leadership skills, social responsibility and ethics

PEO3: Graduates will be design and develop technical solutions for contemporary technological engineering problems with continual learning

PROGRAMME SPECIFIC OUTCOMES (PSO)

PSO1: Good knowledge and hands-on competence to solve emerging real-world problems related to Electronic Devices and Circuits, Communication Systems, Digital Systems, and Electro-magnetics

PSO2: Demonstrate proficiency in specialized software packages and computer programming useful for the analysis/design of electronic engineering systems and profession.

INDUSTRY INSTITUTE PARTNERSHIP CELL (IIPC)

(Centre of Excellence / MoU's / Collaboration Activities / Partial Delivery)

Department of EC signed MoU's with the following Industries:

- **Mobitech Wireless Solution Pvt. Ltd, Erode**, under SPOC of Mrs. S. Malini, AP/EC until 09th March 2026.
- **STEPS Knowledge services Pvt. Ltd, Coimbatore**, under SPOC of Mrs. T. Happila, AP/EC with life time validity.
- **Averzs Technologies Pvt. Ltd, Chennai**, under SPOC of Dr. S. Deepa, ASP/EC until 12th September 2025.
- **Arown Academy, kholikode, Kerala**, under SPOC of Mr. G. Arun Francis, AP/EC until 22nd May 2025.
- **Bonfay tech, Coimbatore**, under SPOC of Dr. C. Priya, ASP/EC until 31st January 2024.
- **Tech Innovations** under SPOC of Ms. L. Saranya, AP/EC until 18th August 2024.
- **Linumiz, Namakkal**, under SPOC of Mr. C. Mukuntharaj, AP/EC until 10th November 2023.
- **Karupa Foundation, Mettupalayam**, under SPOC of Dr. S. Deepa, ASP/EC until 06th November 2025.
- **Amogaa Products Pvt. Ltd, Chennai**, under SPOC of Dr. M. Annalakshmi, Prof/EC until 19th October 2024.
- **Mugil Consulting (Mugil Cloud), Coimbatore** under SPOC of Dr. R. Suguna until 09th November 2024.
- **Gen Controls India Pvt. Ltd Coimbatore** under SPOC of Dr. A. Rajendran, Prof/EC until 31st July 2024.

FACULTY CORNER

Faculty Awards / Achievements/ Patents

Dr. S. Deepa ASP/EC has design patent “MULTI-STATION PEDAL OPERATED HAND WASHING SYSTEM” on 27th January 2023 (Patent No: 372884-001).

Dr. S. Deepa ASP/EC has utility patent “AIR QUALITY INDICATOR” on 06th January 2023 (Patent No: 372884-002).

Dr. S. Deepa ASP/EC has utility patent “BORE WELL RESCUE SYSTEM” on 06th February 2023 (Patent No: 6183/CHE/2013).

Dr. S. Deepa ASP/EC has utility patent “ADVANCED BORE WELL RESCUE UNIT GRIPPER SYSTEM” on 22nd February 2023 (Patent No: 3360/CHE/2014).

Faculty Participation – Seminar / Webinar / Workshop / FDP / STTP

Ms P. Archana Assistant Professor attended one week Faculty Development Program on “Bio-Medical Sensors and Signal Processing” at Loyola Institute of Technology from 9th to 13th January 2023.

Dr. M. Tamil Nidhi Assistant Professor attended One Week International Faculty Development programme on “Research Innovations and Emerging Advances in Electrical Engineering” at Easwari Engineering College from 5th to 12th January 2023.

Dr. M. Tamil Nidhi Assistant Professor attended One Week Faculty Development programme on “Nanotechnology in Biomedical Engineering” at Karpagam Academy of Higher Education from 13th to 18th January 2023.

Mr C. Mukuntharaj Assistant Professor attended one week Faculty Development Program on “Bio-Medical Sensors and Signal Processing” at Loyola Institute of Technology from 9th to 13th January 2023.

Dr R. Selvakumar Assistant Professor attended one week Faculty Development Program on “Bio-Medical Sensors and Signal Processing” at Loyola Institute of Technology from 9th to 13th January 2023.

Mr S. Ram Prasath Assistant Professor attended one week Faculty Development Program on “Bio-Medical Sensors and Signal Processing” at Loyola Institute of Technology from 9th to 13th January 2023.

Ms L. Saranya Assistant Professor attended one week Faculty Development Program on “VLSI Design” from 23rd to 28th January 2023.

Dr R. Suguna Assistant Professor attended three days Faculty Development Program on “Emerging Trends in Electric Vehicle Technology” at Sri Krishna College of Technology from 11th to 13th January 2023.

Dr M. Annalakshmi Professor attended five days Faculty Development Program on “Education 5.0” at Dr.M.G.R Educational and Research Institute from 15th to 19th May 2023.

Dr R. Suguna Assistant Professor attended five days Faculty Development Program on “Education 5.0” at Dr.M.G.R Educational and Research Institute from 15th to 19th May 2023.

Mrs T. Happila Assistant Professor attended one week Faculty Development Program on “Design of High Frequency Antennas for Real Time Application” at Loyola Institute of Technology from 14th to 18th March 2023.

Dr M. GowriSankar Professor attended one week Faculty Development Program on “Design of High Frequency Antennas for Real Time Application” at Loyola Institute of Technology from 14th to 18th March 2023.

Dr Saravanakumar G Professor attended one week Faculty Development Program on “Design of High Frequency Antennas for Real Time Application” at Loyola Institute of Technology from 14th to 18th March 2023.

Dr S Deepa Associate Professor attended one week Faculty Development Program on “Design of High Frequency Antennas for Real Time Application” at Loyola Institute of Technology from 14th to 18th March 2023.

Mr K. Lakshmi Narayanan Assistant Professor attended one week Faculty Development Program on “Design of High Frequency Antennas for Real Time Application” at Loyola Institute of Technology from 14th to 18th March 2023.

Dr. Annalakshmi M Professor attended five days Faculty Development Program on “Inculcating Universal Human Values in Technical Education” at All India Council for Technical Education from 12th to 16th June 2023.

Dr. S. Deepa has successfully completed course entitled “Effective Engineering Teaching IN Practices” and “Effective Writing” and awarded with Elite

Dr. A. Rajendran has successfully completed course entitled “Electromagnetic Waves in Guided and Wireless Media”

Dr. C. Priya has successfully completed course entitled “NBA Accreditation and Teaching and Learning in Engineering (NATE)” and awarded with Elite + Silver

Dr. R. Suguna has successfully completed course entitled “NBA Accreditation and Teaching and Learning in Engineering (NATE)” and awarded with Elite + Silver

Ms. S. Malini has successfully completed course entitled “NBA Accreditation and Teaching and Learning in Engineering (NATE)” and awarded with Elite + Silver

Dr. S. Shobana has successfully completed course entitled “Soft Skill Development” and awarded with Elite

Dr. G. Saravana Kumar has successfully completed course entitled “NBA Accreditation and Teaching and Learning in Engineering (NATE)”

Dr. G. Saravana Kumar has completed course entitled “Principles of Signals and System” and awarded with Elite + Silver.

Mr. N.M. Jayadevan has successfully completed course entitled “Microprocessors and Interfacing” and awarded with Elite + Silver

Dr. M. Annalakshmi has successfully completed course entitled “NBA Accreditation and Teaching and Learning in Engineering (NATE)” and “Digital Electronics and Circuits” and awarded with Elite, Elite + Silver

Ms. L. Saranya has successfully completed course entitled “Soft Skill Development”

Ms. T. Happila has successfully completed course entitled “Enhancing Soft Skill and Personality” and awarded with Elite + Silver

Ms. S. Tharanipriya has successfully completed course entitled “Enhancing Soft Skill and Personality” and awarded with Elite + Silver

Ms. T. Dharanika has successfully completed course entitled “Electric Vehicles - Part 1” and awarded with Elite

Ms. P. Archana has successfully completed course entitled “Fuzzy Sets, Logic and Systems & Applications” and awarded with Elite + Silver

Ms. P. Lakshmipriya has successfully completed course entitled “Soft Skill Development”

Faculty Publications – Books / Conferences / Journals

Dr. Karthigaikumar. P has published paper titled “A Novel Recessed Microstrip Pin-hole conductor fed Patch Antenna”

Dr. Karthigaikumar. P has published paper titled “Optimized Mix Column/ in mix Column Transformation using Vedic Multiplier for the Advanced Encryption Standard”

Dr. Rajendran. A has published paper titled “Enhanced Model for Genetic Algorithm based Accurate Lung Cancer Segmentation and Classification”

Dr. Rajendran. A has published paper titled “Deep Convolutional Neural Network for brain tumor segmentation”

Dr. Priya. C has published paper titled “A Wearable Safety Device for Women using IOT” and “Smart Bike Helmet with vehicle tracking system using Arduino”

Dr. Priya. C has published paper titled “Smart Bike Helmet with vehicle tracking system using Arduino”

Dr. Deepa. S has published paper titled “IOT-enabled smart healthcare data and health monitoring-based machine learning algorithms”

Dr. Deepa. S has published paper “Scheduling Model for Task Loading in Cloud Data Centers”

Dr. Sethuramalingam. T. K has published paper titled “Design of miniaturized dual-band Filtering Antenna with improved selectively utilizing Square Complementary Split Ring Resonator for 5G MM-Wave Automobile Applications”

Mr. Arun Francis. G. has published paper titled “A Novel Recessed Microstrip Pin-hole conductor fed Patch Antenna”

Ms. Saranya. L. has published paper titled “Disease detection of leaves review collection using deep learning”

Ms. Saranya. L. has published paper titled “Symmetric and Asymmetric Algorithms for Susceptible Harmful in Wireless Sensor Network on FPGA Platform”

Ms. Saranya. L. has published paper titled “Smart Electric Vehicle Charging Station”

Dr. Selvakumar. R. has published paper titled “Ultra-Low-Power and Fast Voltage Level Shifter Using Muller C-Cell for VLSI Systems”

Dr. Selvakumar. R. has published a paper titled "Face Biometric Authentication System for ATM using Deep Learning", 3rd International Conference on Electronics and Sustainable Communication Systems (ICESC), Coimbatore, India, 2022, pp. 647-655, doi: 10.1109/ICESC54411.2022.9885334.

STUDENTS CORNER

Students Innovative / Inter-disciplinary Projects

Arun V has presented the project “Foot Step Energy generator” in one day National level technical symposium (TRONIX 2k23) held on 21st February 2023 at Karpagam Academy of Higher Education, Coimbatore and placed 1st place.

Arun V has presented the project “Road Safety System” in IDEATHON an intercollege event conducted by Yi-Yuva held on 05th April 2023 at KPR Institute of Engineering and Technology, Coimbatore and received special award.

Arun V has presented the project “Foot Step Energy Generator presented as paper with hardware” in ACET TECH FEST held on 1st April 2023 at Akshaya College of engineering and technology, Coimbatore and received 2nd place.

Students Awards / Achievements/ Patents

Cibi Chakarvarthe RK, Mukuntharaj C, Malini S & Rajendran A has filed a patent titled “Smart cap for Water Tap” (Application No: TEMP/E-1/5254/2023-CHE) on 23rd January 2023

V. Arun has awarded with SPECIAL AWARD by KPR IDEATHON

V. Arun has awarded with 2nd prize in Paper Presentation by Akshaya ACET TECH FEST

B A. Dinesh Kumar has awarded with 3rd prize in Circuit Debugging by Akshaya ACET TECH FEST

M. Diviya has awarded with 3rd prize in Circuit Debugging by Akshaya ACET TECH FEST

K. Gunabharath has awarded with 2nd prize in Circuit Combat by CIT QUANTUM

S. Pavankumar has awarded with 1st prize in Project Expo by KAHE TRONIX-2k23

S. Pavankumar has awarded with 1st prize in Circuit Debugging by Akshaya ACET TECH FEST

S. Pavankumar has awarded with 2nd prize in Paper Presentation by Akshaya ACET TECH FEST

L. Nandhitha has awarded with 1st prize in Circuitrix by Rathinam Tech Fest

L. Nandhitha has awarded with 1st prize in Paper Presentation by Akshaya ACET TECH FEST

L. Nandhitha has awarded with 1st prize in Technical Quiz by KAHE TRONIX-2k23

Students Participation – Seminar / Workshop / Symposium / NPTEL / AICTE / MOOC's

P. R. Agathesh has participated in BIT V-PRAYUKTI'23 Paper Presentation

B. A. DineshKumar has participated in J&J Crackathon

B. A. DineshKumar has participated in PSG Build your Custom Robot in ROS

M. Divya has participated in Accenture Innovation Challenge 2023

M. Divya has participated in PSG Build your Custom Robot in ROS

S. Gokul has participated in Rathinam Tech Fest Tamil Kalaigalai Kappom

S. Gokul has participated in UIT UTSAV-2K23 Code Debugging

S. Gokul has participated in CIT QUANTUM Circuit Combat

J. Lalidesh has participated in ACET TECH FEST Paper Presentation

J. Lalidesh has participated in PSG IoT for Mechanical Applications

S. Venkatesh has participated in BIT V-PRAYUKIT'23 Paper Presentation

V. Arun has successfully completed NPTEL course entitled “Signals and Systems”

V. Arun has successfully completed NPTEL course entitled “Microprocessors and Microcontrollers” and awarded with Elite

B A. Dinesh Kumar has successfully completed NPTEL course entitled “Microprocessors and Microcontrollers”

S. Gokul has successfully completed NPTEL course entitled “Analog Circuits”

S. Gokul has successfully completed NPTEL course entitled “Microprocessors and Microcontrollers”

C. K. GokulaKrishna has successfully completed NPTEL course entitled “Microprocessors and Microcontrollers



Fig.1: Student participation in paper presentation at Akshaya campus



Fig.2: Student in Symposium on 12th April 2023 at CIT campus

K. Gunabharath has successfully completed NPTEL course entitled “Microprocessors and Microcontrollers” and awarded with Elite

J. Lalidhesh has successfully completed NPTEL course entitled “Microprocessors and Microcontrollers

M. Maharajan has successfully completed NPTEL course entitled “Programming in Java” and awarded with Elite

V. Mohanraj has successfully completed NPTEL course entitled “Principles of Signals and Systems”

S. Pavankumar has successfully completed NPTEL course entitled “Introduction to Programming in C”

S. Pavankumar has successfully completed NPTEL course entitled “Microprocessors and Microcontrollers” and awarded with Elite

S. Venkatesh has successfully completed NPTEL course entitled “Programming in Java”

V. Vinith Kumar has successfully completed NPTEL course entitled “Introduction to Programming in C”

R. Bavya has successfully completed NPTEL course entitled “Programming in Java”

NPTEL LAB:

V. Arun has completed Workshop at IIT-Bombay on “Microcontroller lab based on Pt-51 board”

R. Bhuvaneshvari has completed Workshop at IIT-Bombay on “Microcontroller lab based on Pt-51 board”

B A. Dinesh Kumar has completed Workshop at IIT-Bombay on “Microcontroller lab based on Pt-51 board”

S. Gokul has completed Workshop at IIT-Bombay on “Microcontroller lab based on Pt-51 board”

K. Gunabharath has completed Workshop at IIT-Bombay on “Microcontroller lab based on Pt-51 board”

V. Sri Nithi has completed Workshop at IIT-Bombay on “Microcontroller lab based on Pt-51 board”

K. S. Srikanth has completed Workshop at IIT-Bombay on “Microcontroller lab based on Pt-51 board”



Fig.3: Workshop at IIT-Bombay during 5th-16th June,2023

V. Vinith Kumar has attended workshop on “Game Development” in PSG KRIYA 2023

S. Sudarsan has attended workshop on “Deep Learning: Unlocking the Full Potential” in PSG KRIYA 2023

S. Sudarsan has attended workshop on “System Design using Embedded C and Python” in IoT PSG KRIYA 2023

S. Pavan Kumar has attended workshop on “Deep Learning: Unlocking the Full Potential” in PSG KRIYA 2023

S. Pavan Kumar has attended workshop on “FPGA Based System System Design” in PSG KRIYA 2023

S. Rathish has attended workshop on “Game Development” in PSG KRIYA 2023

R. Saraswathi has attended workshop on “FPGA Based System System Design” in PSG KRIYA 2023

V. Arun has attended workshop on “VLSI for Beginners” in NIT

V. Arun has attended workshop in Silicon Craft VLSI Training

C. K Gokula Krishna has attended workshop on “Automotive Embedded system” in KCT Yugam’23

SUJINI C has attended workshop on “Design and simulation of wearable antenna for biomedical application using HFSS”

SATHYA JAYA SREE R has attended workshop on “Design and simulation of wearable antenna for biomedical application using HFSS”

SELVADHARSHINI S has attended workshop on “Antenna for autonomous vehicle”

Placement

AKASH R (IV EC A) got offer in Tata Elxsi

NANDAN R T (IV EC A) got offer in Urjitha Electronics

RAHUL SANJAI R (IV EC A) got offer in Urjitha Electronics

LINGASHKUMAR U (IV EC A) got offer in Accenture Technologies

JEEVANANTHAM S (IV EC A) got offer in Hexaware

ANGURAJ M (IV EC A) got offer in Mallow Technologies

SURYA K (IV EC A) got offer in Divum Corporate Services

ARUN KUMAR K (IV EC B) got offer in Accenture Technologies

NITYAROOPINI S (IV EC B) got offer in Ascent circuit private limited

KAMALRAJ D (IV EC B) got offer in Moonraft Innovation Labs

JAGATHESH V (IV EC B) got offer in Inno Valley Works

AKSHARA M (IV EC C) got offer in DUCEN

DHANUSH C (IV EC C) got offer in Mallow Technologies

KOUSIKSRIKARAN C (IV EC C) got offer in Accenture Technologies

MADASAMY MUTHUKUMAR R (IV EC C) got offer in Moonraft Innovation Labs

Extra-Curricular Activities – Sports / Cultural

Karthick R has got 1st prize in Power Lifting competition.

S Gokul has participated in Singing Competition

L. Nandhitha has awarded with 2nd place in Volleyball tournament at AU Sports meet conducted by ANNA University.

Karthick R has participated in Mini Marathon.

S. Gokul has participated in Tamil Arts

Sruthika S V has participated in Road Safety Awareness/ Rotary club of Coimbatore

Dhaniskar has participated in Arti Fest Tech Mystery



Fig.4: Student in power lifting competition



Fig.5: Student in singing competition

